BRUHAT BANGALORE MAHANAGARA PALIKE

WARD NO.07, BYATARAYANAPURA

Name of work:- Improvements to roads of 1st to 11th cross left side of Jakkur Layout in ward no.07, Byatarayanapura.

P-code:-

Est cost:49.50 lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Roads of 1st to 11th Cross Left side of Jakkur Layout in Ward No 07, Byatarayanapura

							Construction Cost:		4950000.00
Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	Removing and resetting of footpath slab (P.No.142, I.No.37.56 of PW,P&IWTD S.R 2016-17)								
	Main Road		2	330.00	1.20		792.00		
	Consider 20% Damaged and missing Slabs						-158.40		
		Sqm					**633.60**	132.50	**83952.00**
	Basic rate	**125**							
	Area Weightage 6%	**7.5**							
	Final Rate	**132.5**							
2	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.133, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt								
	Main Road		2	330.00	0.50	0.60	198.00		
	Culvert		2	6.00	1.80	0.90	19.44		
		Cum					**217.44**	186.92	**40643.88**
	Basic rate	**82**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**4.92**							
	Final Rate	**186.92**							
3	KSRB 5.3-1:Providing and constructing granite /trap/basalt size stone masonry in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20cms hign, bond stones at two m apart in each course including cost of materials, labour, curing etc., complete as per specifications.(P-235. Item No. 5.6)								
	Culvert side wall	2x2	4	6.00	0.45	0.90	9.72		
	For damaged portion of existing SSM drain		1	200.00	0.45	0.60	54.00		
		cum					**63.72**	4438.22	**282803.38**
	Basic rate	**4187**							
	Area Weightage 6%	**251.22**							
	Final Rate	**4438.22**							
4	KSRB 5.3-1:Providing ruled pointing of course stone msonry with cement mortar 1:3 20 mm deep, after raking joints to depth of 20 mm nicley lining, including cost of materials, labour, curing etc., complete as per specifications and directions of the engineer-in-charge. (P-112, Item No. 15.8)								
	Culvert side wall	Sqm							
		5x2	4	6		0.90	21.60		
	For damaged portion of existing SSM drain		1	200.00		0.60	120.00		
							141.60	34.98	4953.17
	Basic rate	**33**							
	Area Weightage 6%	**1.98**							
	Final Rate	**34.98**							
5	KSRB4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240 kgs, with 20 mm and down size graded granite matel coarse aggregates @ 0.69 cum and fine aggragtes @ 0.459cum, machine mixed concrete laid in layers not eceeding 15 cms, thick well compacted, in foundation, plinth and cills including cost of all materials, labour HOM machinery curing complate as per specifications. (Page No. 12. Item No. 4.6)								
	coping	cum							
	culverts side wall	5x2	10	6	0.10	0.90	5.40		
	Drain side wall	1x2	2	330.00	0.20	0.10	13.20		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Basic rate	**5441**					**18.60**	5767.46	107274.76
	Area Weightage 6%	**326.46**							
	Final Rate	**5767.46**							
6	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	Consider 20% Damaged and missing Slabs						158.40		
	New slabs for open drain		2	98.00	0.75		147.00		
							305.40	2100.00	641340.00
7	Providing and fixing **RCC Precast cover slab of 200mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
			20	1.80	0.60		21.60		
							21.60	5111.00	110397.60
8	Removing and resetting of kerb stones(P.No.142, I.No.37.57 of PW,P&IWTD S.R 2016-17)								
	Cover Slab	m							
	Main Road		2	335.00			670.00		
	Consider 30% Damaged Kerbs						-201.00		
							469.00	65.72	30822.68
	Basic rate	**62**							
	Area Weightage 6%	**3.72**							
	Final Rate	**65.72**							
9	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete(P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)								
	Cover Slab	No							
	Consider 30% Damaged Kerbs		1	201.00		/0.45	447.00		
							447.00	331.78	148305.66
	Basic rate	**313**							
	Area Weightage 6%	**18.78**							
	Final Rate	**331.78**							
10	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.142, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Bad Reaches	Cum							
			41	2.20	2.80	0.23	58.09		
			25	1.20	1.80	0.23	12.42		
							70.51	148.76	10488.89
	Basic rate	**46**							
	Loading and unloading with 10km lead= 68+2.5x1.28x10 = 100	**100**							
	Area Weightage 6%	**2.76**							
	Final Rate	**148.76**							
11	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.157, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Bad Reaches	Cum							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
			41	2.20	2.80	0.23	58.09		
			25	1.20	1.80	0.23	12.42		
							70.51	1768.08	124667.32
	Basic rate	**1668**							
	Area Weightage 6%	**100.08**							
	Final Rate	**1768.08**							
10	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.160, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Bad Reaches	Sqm							
			41	2.20	2.80	--	252.56		
			25	1.20	1.80	--	54.00		
							306.56	27.56	8448.79
	Basic rate	**26**							
	Area Weightage 6%	**1.56**							
	Final Rate	**27.56**							
11	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.160, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road Formation	Sqm							
	LHS								
	1st Cross		1	180.00	5.50	--	990.00		
	2nd Cross		1	145.00	5.50	--	797.50		
	3rd Cross		1	130.00	6.40	--	832.00		
	4th Cross		1	105.00	6.00	--	630.00		
	5th Cross		1	130.00	5.40	--	702.00		
	6th Cross		1	125.00	6.00	--	750.00		
	7th Cross		1	135.00	6.00	--	810.00		
	8th Cross		1	135.00	5.40	--	729.00		
	9th Cross		1	140.00	6.00	--	840.00		
	10th Cross		1	165.00	6.00	--	990.00		
	11th Cross		1	75.00	4.50	--	337.50		
	Road 3(1st Cross-4th Cross)		1	60.00	6.00	--	360.00		
	Road 4(5th Cross-6th Cross)		1	40.00	5.00	--	200.00		
	Road 5(8th Cross-9th Cross)		1	20.00	4.00	--	80.00		
							9048.00	3.18	28772.64
	Basic rate	**3**							
	Area Weightage 6%	**0.18**							
	Final Rate	**3.18**							
12	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.160 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying BC	Sqm							
	1st Cross		1	180.00	5.50	--	990.00		
	2nd Cross		1	145.00	5.50	--	797.50		
	3rd Cross		1	130.00	6.40	--	832.00		
	4th Cross		1	105.00	6.00	--	630.00		
	5th Cross		1	130.00	5.40	--	702.00		
	6th Cross		1	125.00	6.00	--	750.00		
	7th Cross		1	135.00	6.00	--	810.00		
	8th Cross		1	135.00	5.40	--	729.00		
	9th Cross		1	140.00	6.00	--	840.00		
	10th Cross		1	165.00	6.00	--	990.00		
	11th Cross		1	75.00	4.50	--	337.50		
	Road 3(1st Cross-4th Cross)		1	60.00	6.00	--	360.00		
	Road 4(5th Cross-6th Cross)		1	40.00	5.00	--	200.00		
	Road 5(8th Cross-9th Cross)		1	20.00	4.00	--	80.00		
							9048.00	11.66	105499.68
	Basic rate	**11**							
	Area Weightage 6%	**0.66**							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Final Rate	11.66							
13	KSRRB M500-19. Providing and laying bituminous concrete 40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 6% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.164 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Road Formation	Cum							
	1st Cross		1	180.00	5.50	0.04	39.60		
	2nd Cross		1	145.00	5.50	0.04	31.90		
	3rd Cross		1	130.00	6.40	0.04	33.28		
	4th Cross		1	105.00	6.00	0.04	25.20		
	5th Cross		1	130.00	5.40	0.04	28.08		
	6th Cross		1	125.00	6.00	0.04	30.00		
	7th Cross		1	135.00	6.00	0.04	32.40		
	8th Cross		1	135.00	5.40	0.04	29.16		
	9th Cross		1	140.00	6.00	0.04	33.60		
	10th Cross		1	87.00	6.00	0.04	20.88		
	11th Cross		1	172.00	4.50	0.04	30.96		
	Road 3(1st Cross-4th Cross)		1	60.00	6.00	0.04	14.40		
	Road 4(5th Cross-6th Cross)		1	40.00	5.00	0.04	8.00		
	Road 5(8th Cross-9th Cross)		1	20.00	4.00	0.04	3.20		
	Basic rate	**6746**					360.66	7083.98	2554908.23
	Area Weightage 6%	**404.76**							
	Final Rate	**7150.76**							
14	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.197, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line								
			2	1604.00	0.10	--	320.80		
	Basic rate	**512**					320.80	542.72	174104.58
	Area Weightage 6%	**30.72**							
	Final Rate	**542.72**							
15								**Total Construction Cost**	4457383.26
16								**KRIDL Charges @ 10%**	445738.33
								Labour Cess @ 1%	44573.83
17								**Sub Total**	4947695.41
								Miscellaneous and rounding off	2304.59
								Total	4950000.00

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer 23/12

ADMINISTRATIVE APPROVAL

Accorded For Rs. Forty Nine lakhs Fifty thousand only

Head of A/c P-3333

Adv. Ref. No. 148/17-18 Date. 23/12/17

23/12 AE

EE(BTP) 23/12

Technical Sanction

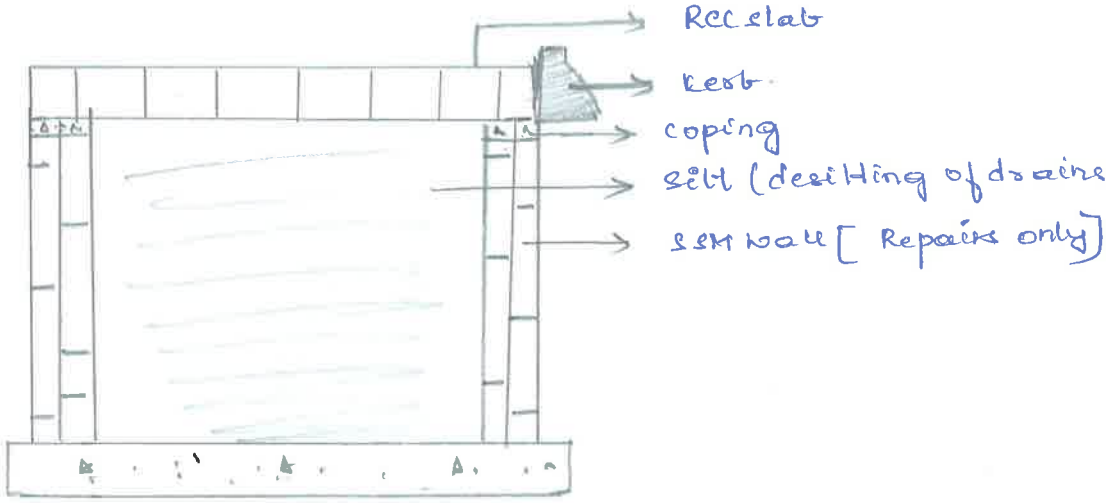
Accorded For 49.50 lakhs.

Head of A/C P3333

CER NO : 533. Dt: 12.01.18

TA CE (YNK)

Name of Work:- Improvements to roads of 1st to 11th cross left side of Takkur layout in Ward no-07 byatarayanapura:



CROSS-SECTION OF EXISTING DRAIN

AE(LM)

Assistant Executive Engineer
Kadugondanahalli Sub Division
Bruhat Bangalore Mahanagara Palike
Bangalore - 560 092